

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
TENTATIVE

ORDER NO. R5-2006-_____

WASTE DISCHARGE REQUIREMENTS

FOR
THE UNITED STATES AIR FORCE
BEALE AIR FORCE BASE LANDFILLS NO. 2 AND NO. 3
CLASS III LANDFILLS
POST-CLOSURE MAINTENANCE
AND MONITORING
YUBA COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Board) finds that:

1. Beale Air Force Base (hereafter Base) is owned and operated by the United States Air Force (hereafter Discharger). The Base is about 10 miles east of Marysville in Yuba County and covers about 23,000 acres as shown in Attachment A, incorporated herein and made part of this Order by reference.
2. Solid waste landfills, Nos. 2 and 3 were previously regulated by Waste Discharge Requirements (WDRs) Order No. 96-015 and prior to that by WDRs Order No. 79-012.

Landfill No. 2 Class III Landfill (Municipal Solid Waste Landfill). This landfill was operated from the early 1950s until 1980 and received photo waste treatment plant sludge, unknown amounts of petroleum/chemical wastes, residential and general base refuse. Dirt, wood, and other inert construction and ground maintenance debris was disposed of from 1980 until the fall of 1993 at the landfill. Landfill No. 2 covers 56 acres and was operated as a trench and fill with 15 to 20-foot deep trenches.

Landfill No.3 Class III Landfill (Municipal Solid Waste Landfill), which accepted refuse from residences and other base activities between 1981 and the fall of 1993. Landfill No. 3 covers about 27 acres. Wastes were discharged to trenches 15 to 25 feet deep, 40 to 60 feet wide at the top, and 600 to 2000 feet in length.

3. Both landfills include access roads, monitoring wells, and drainage facilities as shown in Attachment " B" and " C", incorporated herein and made part of this Order by reference. The landfills are unlined and do not have leachate collection and removal systems.
4. These WDRs implement 40 Code of Federal Regulations (CFR), Parts 257 and 258, or "Subtitle D" because these landfills accepted wastes after the effective date of those regulations, 9 October 1991.

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WASTES AND UNIT CLASSIFICATION

5. The landfills accepted solid wastes defined as “inert” and “nonhazardous” under Sections 20230 and 20220 of Title 27, respectively from 1980 until 1993. The landfill was not authorized to accept hazardous or liquid wastes between 1980 and 1993. However, from the 1950s until 1980, Landfill No. 2 accepted wastes as noted in Finding No. 2. that may have been hazardous and/or liquid wastes.

GEOLOGY

6. The geologic setting [SER1]of the Base includes alluvial and marine shelf sediments overlying metamorphic basement rocks of the Sierra Nevada foothills. The nearest potential active fault is the Dunnigan Hills Fault approximately 36 miles southwest of the site. The fault is estimated to have a maximum expected earthquake magnitude of 6.75, which is estimated to produce a maximum credible acceleration of 0.2 g approximately 18 miles from the site. Rock acceleration at the site due to a magnitude 6.75 earthquake Dunnigan Hills Fault is estimated to be 0.085 g.
7. The Base obtains water from nine water supply wells for base domestic and industrial usage. These Base water supply wells are several miles north and cross gradient from the landfills[SER2]. The Base water supply wells screen several freshwater-bearing zones to depths of approximately 356 feet below ground surface. These freshwater-bearing zones consist of Quaternary- and Tertiary-aged, fluvially-deposited clay, silt, and gravel beds which dip gently to the southwest

SITE DESCRIPTION

8. Land uses within 1000 feet of the facility include agricultural land and open spaces and roads.
9. No domestic wells are known to exist within ½ mile of the landfill.

SURFACE AND STORM WATER

10. *The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition* designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin. The Base is drained by several drainage courses including but not limited to, Reeds Creek, Hutchinson Creek, Best Slough and Dry Creek, all of which are tributary to the Bear River and the Feather River. The beneficial uses of these creeks and the Feather River are municipal and domestic supply agricultural irrigation, water contact and non contact recreation (including canoeing, rafting and aesthetic enjoyment), wildlife habitats (including preservation and enhancement of fish invertebrates), potential warm and cold spawning habitats and wildlife habitats, warm and cold freshwater habitat, groundwater recharge, and navigation.

11. Landfill No. 2 is partially within a 100-year floodplain

GROUNDWATER

12. The beneficial uses of the ground water in the area of the Base are municipal and domestic supply, agricultural supply, industrial supply and industrial process supply as designated in *The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition*.
13. Depth to groundwater is approximately 45 to 55 feet. Groundwater flow is generally to the west-southwest.
14. The groundwater gradient at the site ranges from 0.003 to 0.03 feet per foot and slopes to the west.[SER3].
15. The minimum separation between the base of the landfill and seasonal high groundwater is unknown but estimated to be approximately 20 feet below the ground surface.
16. Landfill No. 2 has six groundwater monitoring wells at the site, including two upgradient wells (MWP-1 and 06C001MW) and four downgradient wells (06A001MW, 06A002MW, 06L003MW and 06L004MW) shown in Attachment B. Groundwater hydrographs show that the groundwater elevation has risen over the last ten years by approximately 1 foot per year. The monitoring wells show seasonal variations of (+/- 5 feet) for the water elevation.
17. Landfill No.3 has six groundwater monitoring wells at the site, including two upgradient wells (MWP-5 and MWP-6) and four downgradient wells (MWP-1, MWP-2, MWP-3 and MWP4) shown in Attachment C. Groundwater hydrographs show a trend that is similar to Landfill No.2. Water elevations have risen by about 1 foot per year over the last ten years. However, the seasonal variations for groundwater are less pronounced and do not show much variation.
18. Groundwater monitoring data for the site has been collected on a regular basis since 1996 at both landfills. Groundwater monitoring activities have detected low concentrations of volatile organic compounds (VOCs) at Landfill No.3. Constituents detected in groundwater are shown in the table, as follows:

LF No. 2

Constituent

Concentration, mg/L

	From 1998 to 2005					
	<u>MWP-1</u>	<u>06C001MW</u>	<u>06A001MW</u>	<u>06A002MW</u>	<u>06L003MW</u>	<u>06004MW</u>
TDS	356-460	270-300	288-413	108-200	214-310	227-320
Chloride	82-210	30-40	15-39	6.5-13	24-53	34-130
Sulfate	20-41	19-38	81-140	8.4-26	7.0-16	5.4-17
Nitrate as N	1.9-2.4	<0.2-0.4	3.6-6.1	3.7-6.8	2.6-3.4	1.5-2.4

LF No. 3

Constituent

	<u>MWP-5</u>	<u>MWP-6</u>	<u>MWP-1</u>	<u>MWP-2</u>	<u>MWP-3</u>	<u>MWP-4</u>
TDS	156-230	272-490	113-200	146-313	109-200	280-560
Chloride	14-30	68-140	2.1-24	3.6-26	1.7-7.1	88-180
Sulfate	16-34	14-34	10-14	2.1- 4.7	6.1- 20.0	40-61
Nitrate as N	2.4-3.9	1.9-3.2	2.0-2.8	1.8-2.8	1.3-2.1	0.56-1.8
TCE (µg/L)	<0.50	<0.50	0.95-2.6	<0.50	<0.50	<0.50

Data in bold (MWP-1, MWP-5, 06C001MW and MWP-6) indicate background monitoring data

Concentrations for TDS, chloride, sulfate and nitrate do not show a significant upward or downward trend relative to background concentrations. The discharger conducted a statistical analysis of the groundwater data using the Student's t-test for Landfill No.2 and Landfill No.3 between 1998 and 2005 and concluded that groundwater has not been impacted. However, monitoring well MWP-1 located downgradient of Landfill No.3 has detected trichloroethene (TCE) on a regular basis and other VOCs on an infrequent basis during sampling events between 1998 and 2005. However, the concentrations of TCE are relatively low suggesting that the impact to groundwater is limited in extent. This order requires monitoring to continue.

LANDFILL CLOSURE

- Previous WDRs required landfill closure to comply with Title 27 regulations. Both landfills stopped accepting waste in 1993. General residential and base refuse was discharged to Landfill No. 2 until 1980, although dirt, wood and other inert construction and ground maintenance debris continued to be disposed of until 1993. The Air Force used treated fuel spill contaminated soil from numerous underground storage tank (UST) excavation sites around the Base as part of the foundation layer for the final landfill cap at both landfills. The treatment of soil removed from the USTs was conducted at a soil bioremediation facility, which was regulated by Order No. 96-014.

Final Closure Plan

20. Landfill No. 2 and No.3 were closed in accordance with the *Revised Final Closure and Postclosure Maintenance Plan Landfill No.2, dated 15 January 1997* and the *Revised Final Closure and Postclosure Maintenance Plan Landfill No. 3, dated 4 April 1996*.

Landfill No. 2

21. The final cover construction for Landfill No. 2 included an 18-inch thick vegetative cover, a 12-inch thick compacted clay barrier layer and a 24-inch thick (minimum) foundation layer. The barrier layer was compacted in order to achieve the prescribed permeability of 1×10^{-6} cm/s or less.
22. The final grades for Landfill No.2 include top decks that are sloped at three percent. The side slopes have a maximum horizontal to vertical ratio of three to one. All final slopes are 3:1 or flatter and, therefore, did not require a slope stability evaluation.
23. Surface runoff is collected in unlined V-ditches. Drainage is diverted to existing drainage courses located adjacent to the landfill. The drainage system is designed to drain individual disposal areas. Surface water drainage structures are designed to accommodate flows resulting from rainfall intensities having a probable return frequency of 100 years.

Landfill No. 3

24. The final cover construction for Landfill No. 3 is an engineered alternative to the prescribed cover. The final cover consists of a 12-inch thick vegetative cover, a 60-mil high density polyethylene (HDPE) barrier layer and a 24-inch thick foundation layer.
25. The final grades for Landfill No. 3 include top decks that are sloped at 2 percent minimum and side slopes have a maximum horizontal to vertical ratio of four to one. The discharger stated that the amount of percolation through the geomembrane on a 2 percent slope is less than the prescribed cover. A slope stability analysis was not performed since all slopes on the landfill are 3:1 or flatter.
26. Surface water drainage is collected in unlined V-ditches that surround the waste disposal areas and are designed to accommodate flows resulting from rainfall intensities having a probable return frequency of 100 years.

Landfill Gas

27. Elevated levels of methane were detected after the installation of caps on both landfills and have required the installation of landfill gas monitoring and control systems. At Landfill No. 2 and No 3, elevated levels of methane gas at the perimeters of both landfills required the installation of gas vents and perimeter soil gas probes. Soil gas monitoring compliance points consist of shallow probes that have completion depths between 5 and 10 feet below ground surface, and 25 to 30 feet below ground surface. Gas produced by the decomposition

of landfill material includes carbon dioxide, carbon monoxide, hydrogen, hydrogen sulfide, methane, nitrogen, oxygen and trace amounts of other gases. Twenty passive gas vents have been installed to control accumulation and migration of gases from Landfill No. 2. Forty-eight passive gas vents have been installed at Landfill No.3 to control accumulation and migration of gases. Soil gas monitoring data have detected Freon 12 (up to 23,900 ppbv), TCE (up to 260 ppbv), Toluene (5120 ppbv) and other VOCs in gas vents from Landfill No. 3. Freon 12 (up to 5610ppbv), TCE (up to 412 ppbv), PCE (up to 618 ppbv) and other VOCs have been detected in gas vents from Landfill No. 2.

COST ESTIMATES AND FINANCIAL ASSURANCES

28. The Air Force has provided Federal certification for Beale Air Force Base Landfill No. 2 and No.3. This certification is in accordance with Title 14, CCR, Division 7, Chapter 5, Article 3.5, Section 18292 to provide financial assurance for closure and post-closure maintenance of Landfill No. 3. The Air Force has stated that it will make timely requests for funds by identifying to the Department of the Air Force the funding necessary to implement post-closure maintenance activities for Landfill No. 2 and No.3.

CEQA AND OTHER CONSIDERATIONS

29. The action to revise the WDRs for an existing facility is exempt from the provisions of the California Environmental Quality Act (CEQA, Public Resources Code Section 21000, et seq.), in accordance with Title 14, CCR Section 15301.
30. Section 13267(b) of California Water Code provides that: "In conducting an investigation specified in subdivision (a), the Regional Board may require that any person who has discharged, discharges, or is suspected of discharging, or who proposed to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who had discharged, discharges, or is suspected of discharging, or who proposed to discharge waste outside of its region that could affect the quality of the waters of the state within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the board requires. The burden, including costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports." The monitoring and reporting program required by this Order (Monitoring and Reporting Program No. R5-2006-____, attached) is necessary to assure compliance with these waste discharge requirements. The technical reports required by this Order and the attached Monitoring and Reporting Program are necessary to assure compliance with these waste discharge requirements. The Discharger owns and operates the facility that discharges the wastes subject to this Order.

31. This Order implements:

- a. *The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition*; and
- b. Chapters 1 through 7, Subdivision 1, Division 2, Title 27, of the California Code of Regulations, effective 18 July 1997, and subsequent revisions.
- c. The prescriptive standards and performance criteria of RCRA Subtitle D, Part 258; and
- d. State Water Resources Control Board Resolution No. 93-62, Policy for Regulation of Discharges of Municipal Solid Waste, adopted 17 June 1993.

PROCEDURAL REQUIREMENTS

32. All local agencies with jurisdiction to regulate land use, solid waste disposal, air pollution, and to protect public health have approved the use of this site for the discharges of waste to land stated herein.
33. The Regional Board notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
34. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.
35. Any person affected by this action of the Regional Board may petition the State Water Resources Control Board to review the action in accordance with Sections 2050 through 2068, Title 23, California Code of Regulations. The petition must be received by the State Water Resources Control Board, Office of Chief Counsel, P.O. Box 100, Sacramento, California 95812, within 30 days of the date of issuance of this Order. Copies of the laws and regulations applicable to the filing of a petition are available on the Internet at http://www.waterboards.ca.gov/water_laws/index.html and will be provided on request.

IT IS HEREBY ORDERED, pursuant to Sections 13263 and 13267 of the California Water Code, that Order No. 96-015 is rescinded, and that the Air Force, its agents, successors, and assigns, in order to meet the provisions of Division 7 of the California Water Code and the regulations adopted thereunder, shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. The discharge of new or additional waste to the landfill at this facility is prohibited.
2. The discharge of solid or liquid waste or leachate to surface waters, surface water drainage courses, or groundwater is prohibited.
3. The landfill shall not cause pollution or a nuisance, as defined by the California Water Code, Section 13050, and shall not cause degradation of groundwater or surface

water.[B4].

4. The discharge shall not cause any increase in the concentration of waste constituents in soil-pore gas, soil-pore liquid, soil, or other geologic materials outside of the Unit if such waste constituents could migrate to waters of the State — in either the liquid or the gaseous phase — and cause a condition of nuisance, degradation, contamination, or pollution.

B. DISCHARGE SPECIFICATIONS

1. The discharge shall remain within the designated disposal area at all times.
2. The Discharger shall, in a timely manner, remove and relocate any wastes discharged at this facility in violation of this Order.
3. Storm water runoff from the facility shall be monitored in accordance with Monitoring and Reporting Program No. R5-2006-_____ and, during periods of construction, such as cap maintenance, the General Storm Water Permit for Construction Activities, as applicable.
4. A minimum separation of five feet shall be maintained between wastes or leachate and the highest anticipated elevation of underlying groundwater per Section 20240(c) of Title 27.

C. POST-CLOSURE SPECIFICATIONS

1. The Discharger shall implement the *Beale Air Force Base-Revised Final Closure and Post Closure Maintenance Plan, Landfill No.2 (January 1997) and the Revised Final Closure and Post-Closure Maintenance Plan, Landfill No.3 (April 1996)* forthwith required under Provision G.5 herein, as approved by Regional Board staff.
2. All final cover slopes shall be capable of withstanding a maximum probable earthquake as defined in Title 27.
3. The final cover shall be designed, graded, and maintained to promote lateral runoff and to prevent, to the greatest extent possible, soil erosion, ponding, infiltration, inundation, slope failure, and washout.
4. The erosion-resistant layer shall be maintained with native or other vegetation capable of providing effective erosion resistance. The vegetation shall not have a rooting depth greater than the erosion-resistant layer thickness.
5. Precipitation and drainage control systems shall be designed, constructed, operated and maintained to convey peak flows from a 100-year, 24-hour storm event.

6. The Discharger shall conduct an aerial site survey of the site for the purpose of updating the topographic map for the site at least every five years. The next aerial site survey shall be conducted by **30 June 2007**.
7. Annually, prior to the anticipated rainy season but no later than **31 October**, any necessary erosion control measures shall be implemented and any necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent storm water flows from:
 - a. Contacting or percolating through wastes,
 - b. Causing erosion or inundation of the landfill cover or other areas of the site, or
 - c. Causing sedimentation and clogging of the storm drains.
8. The post-closure maintenance period shall continue until the Regional Board finds that remaining waste in the landfill will not threaten water quality. Such finding by the Regional Board shall release the discharger only from the need to comply with the SWRCB-promulgated portions of Title 27 and not necessarily from the requirements of other state agencies (including the agents of such agencies) such as the CIWMB and Local Enforcement Agency.
9. The Discharger shall implement necessary corrective action measures in the event that the landfill closure fails to:
 - a. Meet or maintain performance standards under Title 27 (e.g. minimize infiltration and leachate generation) and/or
 - b. Is not otherwise effective as a corrective action and the deficiencies cannot be rectified with repairs.

Measures proposed to address a known or reasonably foreseeable release shall be considered part of the corrective action program for the landfill and implemented as necessary to address such a known or reasonably foreseeable release.

D. FACILITY SPECIFICATIONS

1. The Discharger shall immediately notify the Regional Board of any flooding, unpermitted discharge of waste off-site, equipment failure, slope failure, or other change in site conditions that could impair the integrity of waste or leachate containment facilities or precipitation and drainage control structures.
2. The Discharger shall maintain in good working order any facility, control system, or monitoring device installed to achieve compliance with the waste discharge requirements. All storm water controls, including drainage facilities, shall be maintained so that they function effectively during precipitation events.
3. Methane and other landfill gases shall be adequately vented, removed from the Unit, or otherwise controlled to prevent the danger of adverse health effects, nuisance conditions, or the impairment of the beneficial uses of surface water or groundwater due

to migration through the unsaturated zone.

4. All wells within 500 feet of the waste management units shall have sanitary seals that meet the requirements of the Yuba County Environmental Health Department or shall be properly abandoned. A record of the sealing and/or abandonment of such wells shall be sent to the Regional Board and to the State Department of Water Resources.

E. MONITORING SPECIFICATIONS

1. The Discharger shall conduct groundwater and surface water monitoring, as specified in Monitoring and Reporting Program (MRP) No. R5-2006-____. Groundwater monitoring shall include background monitoring and detection monitoring. Background monitoring shall be conducted for the purpose of establishing concentration limits as part of the Water Quality Protection Standard per Section 20400(a) of Title 27. Corrective action monitoring, if necessary, shall be conducted for the purpose of assessing the nature and extent of the release, designing corrective action measures, and for assessing the progress of corrective action (Section 20430(d)).
2. The Discharger shall provide Regional Board staff a minimum of **one-week** notification prior to commencing any field activities related to the installation, non-routine repair, or abandonment of monitoring devices. The Discharger shall also provide Regional Board staff with a sampling schedule at least 48 hours prior to initiation of each detection, evaluation, or corrective-action monitoring event conducted pursuant to MRP No. R5-2006-____.
3. The Discharger shall comply with the Water Quality Protection Standard as specified in MRP No. R5-2006-____ and the Standard Provisions.
4. The concentrations of the constituents of concern in waters passing the Point of Compliance, as defined in Section C.4 of MRP No. R5-2006-____, shall not exceed concentration limits established in accordance with the MRP.
5. The Discharger shall maintain and implement a Sample Collection and Analysis Plan including the following:
 - a. Sample collection procedures describing purging techniques, sampling equipment, and decontamination of sampling equipment;
 - b. Sample preservation information and shipment procedures;
 - c. Sample analytical methods and procedures;
 - d. Sample quality assurance/quality control (QA/QC) procedures; and
 - e. Chain of Custody control.

MONITORING DATA ANALYSIS

6. All monitoring data analysis methods shall be consistent with the performance standards specified in Section 20415(e)(9) and sampling standards specified in Section 20415(e)(12).

Some of the monitoring data analysis procedures specified in these WDRs (including the MRP) are different than, or are contradictory to, those specified in the Standard Provisions (incorporated under Provision G.2 of this Order). Monitoring Specifications E.9, E.10, and E.11 clarify which specific constituent groups shall be evaluated statistically and which constituent groups shall be evaluated non-statistically. Monitoring Specification E.11 treats VOCs as individual monitoring parameters rather than as a single combined monitoring parameter as set forth in the Standard Provisions. In accordance with General Provision 8 of the Standard Provisions, the data analysis specifications in the WDRs and MRP shall govern over those of the Standard Provisions in such cases where they are inconsistent.

7. The statistical method shall account for data below the practical quantitation limit (PQL) with one or more statistical procedures that are protective of human health and the environment. Any PQL validated pursuant to Section 20415(e)(7) of Title 27 that is used in the statistical method shall be **the lowest concentration (or value) that can be reliably achieved** within limits of precision and accuracy specified in the WDRs for routine laboratory operating conditions that are available to the facility. The Discharger's technical report, pursuant to Section 20415(e)(7) of Title 27, shall consider the PQLs listed in Appendix IX to Chapter 14 of Division 4.5 of Title 22, California Code of Regulations, for guidance when specifying limits of precision and accuracy. For any given constituent monitored at a background or down gradient monitoring point, an indication that falls between the MDL and the PQL for that constituent (hereinafter called a "trace" detection) shall be identified and used in appropriate statistical or nonstatistical tests. Nevertheless, for a statistical method that is compatible with the proportion of censored data (trace and ND indications) in the data set, the Discharger can use the laboratory's concentration estimates in the trace range (if available) for statistical analysis, in order to increase the statistical power by decreasing the number of "ties".
8. For inorganic monitoring parameters and Constituents of Concern (COCs) for which at least 10% of the data from background samples equal or exceed their respective MDL, the Discharger shall use the Tolerance Interval statistical method for background and corrective action monitoring, or an alternate statistical method approved by the Executive Officer in accordance with Section 20415(e)(8)(E), to establish concentration limits pursuant to Section 20400 of Title 27. The Discharger shall conclude that any analyte that exceeds its concentration limit provides a preliminary indication [or, for a retest, provides measurably significant evidence] of a release at that monitoring point. Any COC confirmed by retest as part of a release shall be added to the monitoring parameter list such that it is monitored during each regular monitoring event. The statistical method shall take into account any seasonality in the water quality data.
9. For inorganic monitoring parameters and COCs for which less than 10% of the data from background samples equal or exceed their respective MDL, the Discharger shall use a nonstatistical data analysis method for determining concentration limits and detecting a release. The Discharger shall use the following trigger for these constituents:
 - a. From the constituent of concern or monitoring parameter list, identify each analyte in the current sample that exceeds its MDL. The Discharger shall conclude that the

exceedance provides a preliminary indication [or, for a retest, provides measurably significant evidence] of a release (existing or new) at that monitoring point, if the data contains an analyte that exceeds its PQL.

Any COC confirmed by retest as part of a release shall be added to the monitoring parameter list such that it is monitored during each regular monitoring event.

10. For VOCs and other organic COCs (i.e. non-naturally occurring COCs) the Discharger shall use a nonstatistical data analysis method for determining concentration limits and detecting a release. The Discharger shall use the following trigger for these constituents:
 - a. From the constituent of concern or monitoring parameter list, identify each analyte in the current sample that exceeds either its respective MDL or PQL. The Discharger shall conclude that the exceedance provides a preliminary indication [or, for a retest, provides measurably significant evidence] of a release (existing or new) at that monitoring point, if either:
 - 1) The data contains two or more analytes that equal or exceed their respective MDLs; or
 - 2) The data contains one analyte that equals or exceeds its PQL.

Any COC confirmed by retest as part of a release shall be added to the monitoring parameter list such that it is monitored during each regular monitoring event.

Discrete Retest

11. If the above statistical or non-statistical trigger procedures used for monitoring data analysis for a given media provide a preliminary indication of a new release or a previously unconfirmed constituent of the existing release at a given monitoring point, the Discharger shall immediately notify Regional Board staff by phone or e-mail and, within 30 days of such indication, shall collect *two* new (retest) samples from the monitoring point where the release is preliminarily indicated.
 - a. For any given retest sample, the Discharger shall include, in the retest analysis, only the laboratory analytical results for those analytes detected in the original sample. As soon as the retest data are available, the Discharger shall apply the same tests [i.e. 9. for statistical constituents, 10.a or 11.a for non-statistical constituents], to separately analyze each of the two suites of retest data at the monitoring point where the release is preliminarily indicated.
 - b. If either (or both) of the retest samples trips the applicable trigger above (9, 10.a or 11.a), then the Discharger shall conclude that there is measurably significant evidence of a release at that monitoring point for the analyte(s) indicated in the validating retest sample(s) and shall:
 - 1) Immediately notify the Regional Board about the constituent verified to be present at the monitoring point, and follow up with written notification

submitted by certified mail within seven days of validation; and

2) Comply with 13, below.

Exceedances that the Discharger demonstrates (per Section 20420(k)(7) of Title 27) are the result of sample corruption, laboratory interferences, error, natural variation in the water quality or other cause not associated with a release from the unit shall not trigger notification of a tentative release, and shall not trigger a retest unless a retest is necessary to make the demonstration. Exceedances for any other constituents for which the Discharger fails to conduct a retest will be considered confirmed without retest. Exceedances for constituents that have been previously confirmed as part of the release at a given monitoring point, including regularly detected COCs and COCs that are sporadically detected (e.g. as a result of seasonal or lateral fluctuations in the plume), shall be considered confirmed without notification and retest.

12. If the Discharger determines that there is measurably significant evidence of a release from the Unit at any monitoring point, the Discharger shall immediately implement the requirements of Response To A Release, contained in the Standard Provisions and Reporting Requirements.
13. The data analysis methods shall also include trend analysis using time series plots and an evaluation of the water chemistry by appropriate methods (e.g., Piper diagram, ion balance, stiff diagram etc) to monitor the effectiveness of the detection monitoring program in accordance with Section E.3.a of the MRP. The trigger requirement for performing trend analysis shall be at least 4 historical data points above the PQL.

F. REPORTING REQUIREMENTS

1. The Discharger shall comply with the reporting requirements specified in this Order, in Monitoring and Reporting Program Order No. R5-2006-xxx and in the Standard Provisions.
2. The Discharger shall immediately notify the Regional Board of any flooding, unpermitted discharge of waste off-site, equipment failure, slope failure, or other change in site conditions that could impair the integrity of waste or leachate containment facilities or precipitation and drainage control structures.
3. The Discharger shall notify the Regional Board in writing of any proposed change in ownership or responsibility of the landfill. To assume ownership under this Order, the succeeding owner must apply in writing to the Regional Board requesting transfer of the Order within 14 days of assuming ownership or operation of this facility. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Regional Board, and a statement. The statement shall comply with the signatory requirements contained in the Standard Provisions (Reporting Requirement 5) and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without

requirements, a violation of the California Water Code. Transfer of this Order shall be approved or disapproved by the Regional Board.

4. The discharger shall **mail a copy of each** monitoring **report** and any other reports required by this Order to:

California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670
(or the current address if the office relocates)

G. PROVISIONS

1. The Discharger shall comply with the Monitoring and Reporting Program No. R5-2006-xxx, which is attached to and made part of this order. A violation of the MRP is a violation of these waste discharge requirements.
2. The Discharger shall comply with the Standard Provisions and Reporting Requirements (Standard Provisions), dated August 1997, which are incorporated herein and made part of this Order by reference. The Standard Provisions contain important provisions and requirements with which the Discharger must comply. A violation of any of the Standard Provisions is a violation of these waste discharge requirements.
3. The Discharger shall maintain waste containment facilities, the landfill final cover, precipitation and drainage controls, monitoring wells, and shall continue to monitor ground water and surface waters per Monitoring and Reporting Program No. R5-2006-xxx throughout the post-closure maintenance period.
4. The owners of the waste management facility shall have the continuing responsibility to assure protection of usable waters from discharged wastes and from gases and leachate generated by discharged wastes during the post-closure maintenance period of the landfill and during subsequent use of the property for other purposes.
5. The Discharger shall update its Post-Closure Maintenance Plan to reflect current operations and requirements under these WDRs and MRP No. R5-2006-____. The plan shall include post-closure maintenance, monitoring and any additional corrective action measures that may be necessary to comply with these WDRs. A copy of the updated plan shall be provided to the Regional Board by **28 February 2007**.
6. The Discharger shall take all reasonable steps to minimize any adverse impact to the waters of the State resulting from noncompliance with this Order. Such steps shall include accelerated or additional monitoring as necessary to determine the nature, extent, and impact of the noncompliance.

7. The fact that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order shall not be regarded as a defense for the Discharger's violations of the Order.
8. The Regional Board will review this Order periodically and will revise these requirements when necessary.

I, Pamela Creedon[SER5], Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on _____.

PAMELA C. CREEDON, Executive Officer

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